

REMARKS/ARGUMENTS

Reexamination and reconsideration of this Application, withdrawal of the rejections, and formal notification of the allowability of all claims as now presented are earnestly solicited in light of the above amendments and remarks that follow. Claims 1-49 are being examined. Withdrawn claims 50-63 have been cancelled herein. Claim 28 has been amended to include the upper intensity limit inadvertently deleted from the claim in the previous amendment. Entry of the amendment is requested as it is believed to place the application in condition for allowance, or alternatively, in better form for appeal.

I. Request for Reconsideration of Finality of Rejection

Applicant respectfully requests reconsideration and withdrawal of the finality of the Office Action dated October 22, 2003. Applicant respectfully traverses the Examiner's conclusion that Applicant's previous amendment necessitated the new grounds of rejection presented in the latest Office Action.

Sections 706.07 and 706.07(a) of the MPEP outline the situations where it is appropriate to issue a final rejection. As noted therein, a final rejection is generally only in order when a clear issue has developed between the Examiner and the Applicant. The MPEP specifically notes that switching "one set of references to another by the Examiner" in successive actions "tend[s] to defeat attaining the goal of reaching a clearly defined issue." (MPEP §706.07) Further, the MPEP notes that a second or subsequent action on the merit should be final, except "where the Examiner introduces a new ground of rejection that is neither necessitated by Applicant's amendment of the claims nor based on information submitted in an information disclosure statement filed during the period set forth in 37 C.F.R. §1.97(c)." (MPEP §706.07(a)).

In the present case, the last Office Action contains several new rejections that cannot be fairly characterized as necessitated by Applicant's amendment and which are certainly not based on an information disclosure statement filed during the period set forth in 37 C.F.R. §1.97(c). For the first time, the Examiner has introduced two new references that were not cited by the Applicant or relied upon by the Examiner previously. Specifically, the Examiner is now relying

upon U.S. Patent No. 5,260,350 to Wright and U.S. Patent No. 5,571,570 to Lake. The Examiner relies upon a combination of the Lake and Wright references, with the Maeda and Sokol references, in a new rejection of Claims 1-15 and 17-18. Further, the Examiner has added the Lake and Wright references to the combination of references used to reject Claims 16, 19-21, 26, 28-32, 35, 39, 40-42, and 43-46. Neither of these references were presented in the previous Office Action and Applicant's previous amendment contained no substantive amendments to the claims affecting claim scope. In particular, Applicant notes that independent Claims 1 and 19 were not amended in any manner whatsoever. Nonetheless, the Examiner is now relying on a completely new combination of references, including two newly cited references, to reject both independent claims. Clearly, the new combination of references cannot be viewed as a response to a claim amendment by the Applicant. In light of the foregoing, Applicant respectfully requests reconsideration and withdrawal of the finality of the Office Action dated October 22, 2003.

II. Section 112 Rejections

Claim 28 stands rejected under 35 U.S.C. §112, second paragraph, as being indefinite. Specifically, the Examiner has correctly noted that Applicant inadvertently removed the upper bound of the intensity range originally recited in Claim 28. In response, Applicant has amended Claim 28 to reinsert the upper bound and requests reconsideration and withdrawal of this rejection.

III. Section 103 Rejections

The Office Action includes five rejections under 35 U.S.C. §103(a) involving a combination of the Maeda reference with one or more additional references. Specifically, Claims 1-15 and 17-18 stand rejected under 35 U.S.C. §103(a) as being unpatentable over the Maeda reference in view of U.S. Patent No. 5,773,487 to Sokol, U.S. Patent No. 5,260,350 to Wright and U.S. Patent No. 5,571,570 to Lake. Claims 16, 19-21, 26, 28-32, 35, 39-42 and 43-46 stand rejected as being unpatentable over the Maeda, Sokol, Wright and Lake references, and further in view of either U.S. Patent No. 5,126,005 to Blake or U.S. Patent No. 4,585,519 to Jaffe

et al. Claims 22-23, 27, 33-34, 37-38, and 48-49 stand rejected as being unpatentable over the combination of the Maeda, Sokol, and Blake or Jaffe references. Claims 24-25 and 36 stand rejected as being unpatentable over the Maeda reference in view of either Blake or Jaffe, further in view of Sokol and further in view of U. S. Patent No. 6,136,880 to Snowwhite *et al.* Claim 47 stands rejected as being unpatentable over the Maeda and Sokol references in view of either Blake or Jaffe and further in view of U.S. Patent No. 4,716,270 to Gnanamuthu *et al.* Applicant respectfully traverses these rejections and further traverses the Examiner's allegation that "Maeda, Sokol, Lake, and Wright all relate to the same art of radiation curing for polymerizable acrylate compositions."

As noted previously, the Maeda reference is directed to water-based maskant compositions and merely describes a prior art maskant composition that requires extensive drying to remove the water present in the composition. The composition described in the Maeda suffers from some of the same disadvantages discussed in Applicant's background; namely, inconsistent and potentially long drying times, particularly in high humidity environments. There is nothing in the Maeda reference that even remotely suggests the use of a substantially solvent-free maskant coating composition as presently claimed by Applicant. Instead, the Maeda reference describes compositions containing as much as 100-300 parts by weight of water (column 4, lines 41-47). Thus, the Maeda reference actually teaches away from Applicant's invention by suggesting the use of a water-based maskant composition.

Further, the Maeda reference teaches a fundamentally different method of preparing the maskant composition. The Maeda reference teaches forming a water-based maskant composition by adding 100 parts by weight of a solid latex component comprising a copolymer latex obtained by emulsion polymerization and a natural rubber latex to 100-300 parts of water. After such a water-based composition is formed, the mixture is then coated onto a metal substrate and dried. In stark contrast, Claim 1 of Applicant's invention recites the steps of applying a radiation curable composition and then exposing the coated substrate to actinic radiation to cure the maskant. Unlike the Maeda method, the curing or polymerization step in the present method occurs after application of the coating to the substrate. The Maeda reference contemplates

polymerizing the latex portion of the composition prior to applying the coating to the substrate. Contrary to assertions made by the Examiner, Maeda is not in the “art of radiation curing.”

The Examiner seeks to overcome these clear deficiencies in the Maeda reference by combining Maeda with the Sokol reference. However, Applicant again respectfully contends that the Sokol reference is not properly combinable with the Maeda, Jaffe or Blake references in the manner contemplated in the Office Action.

As noted above, the Maeda reference is directed to a water-based latex maskant composition formed by adding a polymer latex solid to water along with other optional ingredients. Maeda describes a peelable maskant composition useful for protecting a metal substrate from chemical attack during a chemical milling process. As noted in the background section, the invention described in Maeda is intended to overcome the disadvantages associated with prior maskants that contained volatile organic solvents that cause pollution problems. The Maeda reference notes in columns 1-2 that prior attempts to formulate a water-based maskant produced inferior results due to interaction of the coating with the alkali etchant bath (e.g., swelling of the mask), poor coating workability and poor peelability. The Maeda reference teaches that the water-based formulation described therein provides good peelability and coating characteristics, as well as resistance to chemical attack.

In stark contrast, the Sokol reference is directed exclusively to UV-curable polymerizable coating compositions that are substantially solvent-free and designed for use as “finishing” coatings for household items (see column 1, lines 18-44). The Sokol reference describes the use of sprayable UV curable coatings that avoid solvent emission problems associated with prior coating finishes. Although Sokol provides a general suggestion that the coatings described therein can be applied to metal, there is absolutely no suggestion in the Sokol reference that the compositions described therein would be suitable for use as a peelable maskant composition resistant to an etching bath as required in the Maeda reference, as well as the Jaffe and Blake references. Sokol does not mention chemical milling maskant as a possible application for the coatings described therein. Further, there is nothing in the Sokol reference that describes the peelability or chemical resistance characteristics of the coatings described therein, which is not

surprising since the focus in Sokol is on finishing coatings that are not intended for exposure to harsh chemical attack or intended to be peeled.


Given the complete lack of any suggestion in Sokol that the coatings described therein would be suitable for use in the specific application discussed in Maeda, Applicant respectfully submits that there is no reasonable motivation to combine the Sokol and Maeda references as contemplated in the Office Action. Only the use of impermissible hindsight and Applicant's disclosure would lead one of ordinary skill in the art to combine these two references. This conclusion becomes inescapable when considered in light of the discussion in Maeda of failed prior attempts to produce a workable maskant that avoids the use of volatile organic solvents. Due to the harsh environment produced by chemical milling baths and the need for peelability and good coating characteristics, it is difficult to produce a coating suitable for use as a maskant in a chemical milling application. This is made abundantly clear in the background discussion of Maeda. Sokol provides nothing to lead one of ordinary skill in the art to reasonably believe that the coatings of Sokol would have the necessary characteristics needed for a successful chemical milling maskant. In particular, there is nothing in Sokol that would lead one to believe that the Sokol coatings would exhibit the critical characteristics of peelability and chemical resistance necessary for a chemical milling maskant. In light of the foregoing, Applicant requests reconsideration and withdrawal of all rejections that rely on a combination of Maeda and Sokol.

It is believed that all pending claims are now in condition for immediate allowance. It is requested that the Examiner telephone the undersigned should the Examiner have any comments or suggestions in order to expedite examination of this case.

It is not believed that extensions of time or fees for net addition of claims are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 CFR § 1.136(a), and any fee required therefore (including fees for net addition of claims) is hereby authorized to be charged to Deposit Account No. 16-0605.

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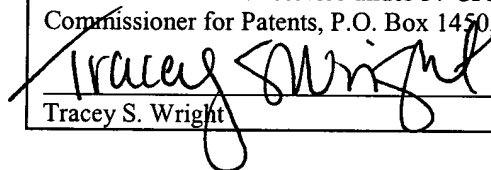
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